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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	GEN Docket No. 90-314
	)	ET Docket No. 92-100
Amendment of the Commission's Rules to Establish New Personal Communications Services	)	RM-7140, RM-7175, RM-7617, RM-7618, RM-7760, RM-7782 RM-7860, RM-7977, RM-7978, RM-7979, RM-7980
	)	PP-35 through PP-40, PP-79 through PP-85

COMMENTS OF THE NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION

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SUMMARY

The Commission's Notice raises numerous issues that are fundamental to establishing personal communications services (PCS) as a family of viable radio services. NTIA applauds the Commission's efforts to move expeditiously with this proceeding and its willingness to consider new and innovative regulatory approaches in order to make PCS a reality in the United States. NTIA believes that the key to PCS development is an open, flexible radio spectrum management policy that allows PCS to encompass a wide variety of services and evolve in response to market forces and rapidly changing technology.

In crafting a regulatory framework for these new services, the Commission should allow the marketplace, and not government fiat, to shape the development of PCS. NTIA continues to recommend that Congress grant the Commission explicit authority to award initial licenses through a competitive bidding process. However, even if such authority is not available, reliance on market forces could simplify many of the difficult market structure issues that the Commission raises in its Notice.

Because NTIA believes that the best starting point for a competitive PCS market is more, rather than fewer, service providers, we urge the Commission to grant at least three, and possibly four or five, PCS licenses in each geographic area, and then allow the market to establish the economically efficient

number of providers through transfers and consolidation. At least for an initial three-year period, however, the Commission should prohibit consolidation that results in a market structure with fewer than three PCS licensees. To the extent the Commission feels constrained from licensing several PCS providers because of a lack of spectrum, we suggest that it consider increasing the total allocation for licensed PCS beyond the 90 MHz proposed in the Notice or issuing licenses for blocks of spectrum smaller than 30 MHz.

Although there is no "magic bullet" for choosing, through an administrative process, an optimal geographic size for PCS licenses, we suggest some guidelines for evaluating various options being considered. In addition to the options set forth in the Notice, we propose that the Commission consider using the 183 "economic areas" defined by the Department of Commerce's Bureau of Economic Analysis. We also recommend that the Commission adopt rules that would allow licensees to aggregate or subdivide their licenses following an initial license assignment, thereby allowing license holders to alter the geographic scope of their licenses in response to market forces.

Because one of the first, and potentially most commercially significant, applications of PCS may be a service that is a close substitute for the existing cellular service, NTIA believes that cellular companies initially should generally be excluded from

obtaining PCS licenses in their service areas. This prohibition should be reexamined three years after PCS licenses are awarded in light of the development of the land mobile marketplace at that time. At the same time, we support liberalizing the current cellular rules to better enable cellular providers to offer PCS-type services within the existing cellular frequencies. We also recommend that local exchange carriers (LECs) that are not cellular providers in their service areas be permitted to obtain PCS licenses for these areas subject to nonstructural safeguards to prevent discrimination and improper cost-shifting.

Finally, we address some regulatory classification issues raised in the Notice. We discuss generally the implications of classifying PCS as a private or common land mobile service, and conclude that the Commission may have to consider the proper classification of each type of PCS offering. The key under either classification is for the PCS marketplace to develop competitively. We recognize that if PCS is classified as a common carrier service, state regulation, if comprehensive and intrusive, could undermine the development of a competitive, interstate PCS market. Nevertheless, we believe that, with certain exceptions noted below, it would be premature for the Commission to preempt state regulation of PCS at this time, although such preemption may be necessary at a later date. We support the Commission's proposal to assert a federally protected right for PCS providers to interconnect with the LECs' public

switched networks, and agree that it would be unwise to mandate precise technical interconnection specifications at this time. Instead, we support a general requirement that interconnection be provided on nondiscriminatory terms. We agree with the Commission that rules for the interconnection of PCS providers to LECs should be determined at the federal level because it would be infeasible to separate PCS intrastate and interstate services for the purpose of determining interconnection policy. Finally, just as interconnection rates for conventional telephone service can be separated for the state and federal jurisdictions, we agree with the Commission that it is not necessary to preempt state ratemaking for PCS interconnection.

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COMMENTS OF THE
NATIONAL TELECOMMUNICATIONS AND INFORMATION ADMINISTRATION

The National Telecommunications and Information Administration (NTIA), as the Executive Branch agency principally responsible for the development and presentation of domestic and international telecommunications and information policy, and for management of federal use of the radio frequency spectrum, respectfully submits the following comments in response to the Commission's Notice of Proposed Rulemaking in the above-captioned proceeding.[1/]

I. INTRODUCTION.

The Notice presents two important opportunities for the United States -- an opportunity to develop advanced mobile voice and data communications services that can enhance the productivity and quality of life of U.S. citizens, and an

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1/ Amendment of the Commission's Rules to Establish New Personal Communications Services, Notice of Proposed Rulemaking and Tentative Decision, 7 FCC Rcd 5676 (1992) ["Notice"].

opportunity to develop a domestic personal communications service (PCS) industry strong enough to be competitive in a global economy. We applaud the Commission's efforts to move promptly with this proceeding. In doing so, the Commission is considering new and innovative regulatory approaches to ensure that PCS becomes a reality in the United States and develops primarily in response to technological and marketplace dynamics, rather than government fiat.

The Notice presents an open and inclusive view of PCS that would allow it to develop in many varied forms in response to market forces. The Commission proposes to define PCS as "a family of mobile or portable radio communications services which could provide services to individuals and business, and be integrated with a variety of competing networks."[2/] Some envision PCS as a service that will compete primarily with the rapidly growing cellular service, while others foresee the use of PCS for a variety of innovative new services, such as wireless local area networks (LANs), wireless private branch exchanges (PBXs), and pedestrian telepoint-type services within specific buildings or limited geographical areas. Some believe that interexchange carriers could use PCS to bypass the local wireline loop, while local exchange carriers (LECs) may seek PCS licenses to enhance the capabilities of their landline networks. Under all of these scenarios, it seems clear that government agencies,

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2/ Notice, 7 FCC Rcd at 5689, para. 29.

as well as individuals and businesses, are prospective users of PCS.[3/] NTIA, like many others, believes that PCS has the potential to be a widely available, low cost service that will become a major part of the telecommunications infrastructure of the United States.

To some, the lack in the Notice's definition of a highly specific list of services constituting PCS may suggest that there is little basis for the Commission to make regulatory decisions for these new services. NTIA believes to the contrary that the danger lies in defining PCS too narrowly, or assuming this new service will simply replicate existing services such as cellular radio, and thus losing the opportunity presented for development of other mobile services as well.[4/]

3/ As manager of federal spectrum use, NTIA has an interest in the provision of PCS to federal government agencies. The potential capacity and mobility of PCS could make it desirable for emergency preparedness and national security applications. The National Communications System (NCS), representing a collection of federal agencies that are likely users of PCS, has notified us that it will file comments in this proceeding addressing the important concerns of these agencies (NCS Comments). Such concerns include interoperability with other telecommunications systems, nationwide compatibility, international interfaces, and survivability.

4/ Numerous technical implementations of various types of PCS offerings have been proposed. Although we support the development of numerous approaches to PCS, we recognize that this adds to the complexity of the decisions that the Commission faces in developing allocation and licensing policies for PCS, as well as policies for resolving technical incompatibilities and standards issues. However, it appears that the industry is beginning to address these issues. For example, there is a growing recognition among

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Indeed, the Notice presents a paradox. While it defines PCS broadly, it proposes rules and seeks comment on regulatory approaches based on that of the cellular service -- for example, a limited number of providers, numerous geographic license areas, power limits,[5/] and channelization plans. In some instances, the questions and proposals in the Notice appear to assume that PCS will develop in a way that, at the extreme, would make it virtually indistinguishable from the existing cellular service.[6/]

NTIA recognizes that PCS, especially as first introduced, may resemble current cellular service. But if the point of this proceeding is merely to establish competition for cellular radio service, the Commission could easily do so by specifically allocating additional radio spectrum for that purpose. If, on

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4/ (...continued from preceeding page) prospective service providers and suppliers that system compatibility is important. Parties conducting PCS experiments are trying a variety of approaches to using spectrum, including ways to share frequencies more easily with fixed services. The Commission should monitor these efforts and permit them to proceed before imposing regulatory solutions that may be unnecessary.

5/ The Notice's discussion of power limits for 2 GHz PCS systems demonstrates this paradox well. The Commission asks whether it should adopt maximum power and antenna height limits that mirror values used in current, small-cell experimental PCS systems, or whether it should allow larger-cell systems with power levels 100 times larger and antenna limits more than six times higher than current experimental systems. 7 FCC Rcd at 5720-21, paras. 114-116. Consistent with our comments herein, we believe the Commission should select a maximum power level that does not hamper the development of a variety of PCS systems.

6/ See, e.g., id. at 5691, para. 38.

the other hand, the Commission's goal is to encourage PCS to achieve its full potential, the Commission must allow PCS providers to respond flexibly to the needs of consumers, through the operation of market forces.

II. NTIA SUPPORTS THE DEVELOPMENT OF A REGULATORY FRAMEWORK FOR PCS BASED, TO THE GREATEST EXTENT FEASIBLE, ON COMPETITION AND MARKET FORCES.

The Notice raises numerous issues that are fundamental to establishing PCS as a family of viable radio services, including the number of service providers in an area, the size of a geographic license area, the amount of spectrum per licensee, and eligibility requirements. As we discuss below, in addressing these and other "service definition" issues, the Commission's regulatory framework should permit market forces to determine the environment in which PCS develops. Those forces can, if permitted to operate, correct for initial miscalculations by the Commission both in establishing the services that should be provided and identifying the economically efficient market structure.

A. The Commission Should Authorize a Large Number of Service Providers Per Market.

In seeking comment on the number of PCS licenses it should award in a given geographic market,[7/] the Commission has posed a complex question. Any decision by the Commission on this issue

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7/ Id. at 5690, para. 34.

will affect, and be affected by, other issues posed in the Notice, such as the amount of spectrum allocated to PCS and the geographic size of licenses.

As the Commission knows, its need to specify an initial set of licensees in a market is primarily a spectrum management issue; were it not for the perceived scarcity of spectrum, the Commission would not need to address this issue. Usually, market forces, rather than government regulation of entry, can best determine an efficient number of service providers in a market. We thus applaud the Commission's efforts to provide an allocation "that allows for the provision of the widest range of PCS services at the lowest cost to consumers," that is "large enough to accommodate all entities interested in providing PCS services," and that "would allow market forces," in the long run, "to determine the optimum number of service providers."[8/]

In determining the initial number of licensed PCS providers within a geographic service area, NTIA recommends that the Commission establish a starting point that errs on the side of more, rather than fewer, service providers. Assuming the Commission permits PCS licensees to aggregate their operations through market transactions, consumers may not be appreciably harmed, in the long run, by initially assigning "too many"

8/ Id.

licenses,[9/] while the cost of assigning "too few" licenses -- high rates for service and other characteristics of less than fully competitive markets -- could potentially be significant and persistent.[10/] NTIA therefore recommends that the Commission assign at least three, and if possible four or five, PCS licenses within a given geographic area.[11/]

9/ We recognize that assigning "too many" licenses could impose costs upon society, at least in the short run, to the extent that firms may not realize available economies of scale. However, to the extent that significant economies of scale exist, and the number of initial PCS licenses is not excessively large, we believe that competitive forces will, over time, induce PCS providers to adjust their operations to realize them.

10/ If PCS providers are able to exercise some degree of market power (because the Commission initially issued "too few" licenses), they may not have the incentives to transfer voluntarily some of their spectrum to a potential new entrant, which would increase competition in the marketplace. Moreover, while in theory the Commission would have some regulatory options for adjusting industry structure, as a practical matter, it would be extremely difficult to take back spectrum from a PCS provider and give it to a new entrant even if the Commission later determined that such an approach was warranted on competitive grounds. Also, it may not be feasible, or at least easy, to create more service providers by allocating more spectrum to PCS at some future point.

11/ We are aware of the contention that the Commission should consider the two current cellular providers in each market and perhaps Specialized Mobile Radio (SMR) service providers, where licensed, in deciding how many PCS providers to authorize, because, at least initially, PCS will resemble the current cellular service. Under this hypothesis, the Commission could reasonably authorize two or even one PCS provider, because competition from cellular (and also from enhanced SMR) providers will be strong enough to establish competitive service rates. Given the uncertainty as to whether PCS will actually be a competitive substitute to cellular, however, as well as the potential costs from setting an initial industry structure with too few licensees, we think limiting PCS assignments to one or two

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NTIA recommends that once the Commission has established the initial number of licenses to award, it allow license holders to subdivide their licenses or acquire portions of other licenses, thus allowing market forces to determine the number of operating PCS providers in a geographic area. Such subdivision and consolidation may improve productive efficiency and, therefore, be socially desirable. However, NTIA recommends that the Commission initially exercise caution in permitting such consolidation following its granting of licenses, in order to ensure that the PCS market does not become overly concentrated. Thus, the Commission should, at least for an initial three-year period after the assignment of PCS licenses, prohibit consolidation that results in a market structure with fewer than three PCS licensees.[12/]

11/ (...continued from preceeding page) licenses would be a mistake. Rather, we believe that it is important for the Commission to authorize at least three PCS providers and let market forces determine an economically efficient market structure.

12/ The number of providers required for a market to be competitive depends on demand and supply conditions. Unfortunately, economic theory cannot, by itself, identify the minimum number of firms needed for a competitive PCS market. However, it is generally recognized that the economic performance of an industry improves with an increasing number of market participants. NTIA's recommendation that, at least for an initial period, the Commission limit consolidation to no fewer than three PCS licensees per market reflects a cautious approach in the absence of demand and supply data and also recognizes that reservations have been expressed regarding the desirability of a duopoly structure in the cellular telephone industry. See U.S. Gov't Accounting Office, Telecommunications: Concerns About Competition in the Cellular Telephone Service Industry 4 (July 1992) (Report to the Honorable Harry Reid, U.S. Senate).

(continued...)

B. The Amount of Spectrum Allocated to PCS and Assigned to Individual Licensees Should Permit Competitive Entry by a Large Number of Firms.

With respect to the size of spectrum blocks to be allocated for use by licensed PCS providers in the frequencies near 2 GHz, the Commission indicates a preference to assign three licensees in a geographic area a total of 30 MHz each (three 15 MHz block pairs).[13/] As we have noted in the previous section, this issue is closely related to the issue of the number of PCS licensees in a region because the number and size of blocks affects the total amount of spectrum allocated to PCS.

As discussed above, NTIA recommends that the Commission issue a relatively large number of PCS licenses per area, and permit users to aggregate licenses or spectrum through market transactions. NTIA believes that such an approach is more likely

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12/ (...continued from preceeding page)

Other factors could also be important. For example, in light of our recommendation to permit transfers of spectrum among PCS licensees, the Commission should examine the degree to which competition among PCS licensees depends on the amount of spectrum they hold as a result of such transactions.

13/ Notice, 7 FCC Rcd at 5691, para. 38. Thus, 90 MHz would be allocated to three licensed PCS providers in an area. In addition, the Commission proposes to allocate 20 MHz for non-licensed PCS, id. at 5693, para. 43, and seeks comment on allocating an additional 10 MHz for local exchange carriers, id. at 5706, para. 78. This spectrum therefore represents about half of the 220 MHz recently made available by the Commission to emerging technologies. See Redevelopment of Spectrum to Encourage Innovation in the Use of New Telecommunications Technologies, ET Docket 92-9, First Report and Order and Third Notice of Proposed Rule Making, FCC 92-437 (rel. Oct. 6, 1992).

to result eventually in an economically efficient market structure than one in which "too few" licenses are issued.

The Commission's proposal for three licenses is consistent with NTIA's proposed minimum number of licenses. However, NTIA recommends that the Commission seriously consider licensing more than three PCS providers per area. It could do this either by increasing the total spectrum allocated for licensed PCS to more than 90 MHz or by providing smaller blocks of spectrum for each PCS license. The first approach would require the Commission to take into account the desirability of retaining spectrum for other potential uses of the frequencies identified for emerging technologies in the bands around 2 GHz.[14/] Nevertheless, if the Commission allows PCS licensees considerable flexibility to modify the types of services they offer, rather than insisting on some rigid, narrowly defined service categories, the potential risks from "over-allocating" spectrum to PCS are reduced.

14/ Although the Commission does not discuss at length why it prefers to allocate 110 MHz of spectrum from that located in the bands around 2 GHz, we recognize that the recent international allocations for mobile satellite services also occupy the 2 GHz region. See Notice, 7 FCC Rcd at 5684 n.15, 5691 n.27. NTIA believes that the Commission must weigh the future value of reserve spectrum against the opportunity cost of allowing that spectrum to remain unused for PCS now. Without a mechanism such as competitive bidding to provide an objective measure of the spectrum's value, the Commission faces a very difficult task in making this decision. NTIA believes that to ensure that spectrum is put to its highest and best use, the Commission should allocate spectrum to a broadly defined category of PCS services, and give licensees the flexibility to offer advanced PCS services as they develop.

The second approach -- smaller blocks of spectrum per license -- may also be feasible. Experience has shown that in many instances, as technology develops, licensees are able to find ways of either providing the same level of service using less spectrum, or more service with the same amount of spectrum. Therefore, NTIA proposes that the Commission consider issuing licenses for blocks of spectrum smaller than 30 MHz.[15/]

C. The Commission Should Consider a Number of Factors in Determining a Geographic Licensing Scheme, and Allow Licensees to Transfer or Subdivide Licenses in order to Reach an Economically Optimal License Size.

The Commission also faces an important but complex issue in determining the geographic size of PCS licenses. The Commission tentatively concludes that PCS service areas should be larger than those initially licensed in the cellular radio service, and seeks comment on four licensing options for defining geographic areas: the 194 telephone Local Access and Transport Areas (LATAs) established in implementing the AT&T antitrust consent decree;[16/] nationwide;[17/] 487 "Basic Trading Areas" as defined by

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15/ As the Commission recognizes, it would, of course, be possible to combine these two approaches. For example, increasing the total allocation for licensed PCS to 100 MHz and reducing each license to 25 or 20 MHz would permit the Commission to issue four or five licenses, respectively. See Notice, 7 FCC Rcd at 5692, para. 40.

16/ See United States v. Western Electric Co., 569 F. Supp. 990 (D.D.C. 1983).

17/ Notice, 7 FCC Rcd at 5700-01, paras. 60-61.

Rand McNally,[18] plus Puerto Rico; or 47 "Major Trading Areas," also defined by Rand McNally,[19] plus Alaska and Puerto Rico.

In choosing license size, the Commission should carefully balance a number of factors weighing in favor of or against initial geographic areas that are either "too large" or "too small."

First, as the Commission correctly observes,[20] it must consider the administrative and legal transaction costs associated with conveying a PCS license in a post-assignment exchange as a result of establishing license areas that are "too small." These are costs that can be avoided if the service areas are relatively large.[21] In addition, by increasing the number of adjacent PCS franchises, the creation of small service areas will increase the costs associated with coordinating interference rights among adjacent areas.[22]

18/ Rand McNally & Company, 1992 Commercial Atlas & Marketing Guide 39 (123d ed. 1992) ["Rand McNally"].

19/ Id.

20/ See Notice, 7 FCC Rcd at 5700, para. 58.

21/ Because they consume valuable resources, and thereby reduce the gains associated with the exchange, post-assignment transactions that consolidate geographic regions indicate that the societal value of spectrum use is not being maximized.

22/ Indeed, the Commission should examine the record carefully to determine whether, as a technical matter, this need to coordinate interference rights will result in much less

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Second, consumers may face increased costs from having a large number of geographic areas licensed to different providers. The Commission should consider the economic benefits that PCS customers could obtain from being able to deal with an organization that has broad geographic coverage, particularly for purposes of billing, customer service, and technical compatibility between handsets and the PCS provider's transmitting equipment.[23/] These benefits are likely to be large in areas where the degree of economic and social integration is high -- that is, along patterns of travel and commerce experienced by PCS users. This, of course, depends on the uses of PCS, which in turn depend on the capabilities of the service. To the extent that PCS may resemble cellular service, the Commission may compare its experience with that service, where, as it observes, a system of "regional" licenses has emerged, and the industry has been consolidating rapidly.[24/] If, however, PCS develops as a

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22/ (...continued from preceeding page) spectrum being available for actual PCS use in many geographic areas if the Commission creates a large number of small service areas.

23/ Society may incur other costs if equipment is incompatible from area to area. For example, as NCS notes in its comments, national defense and emergency preparedness agencies would benefit from having access to interoperable systems throughout the United States.

24/ See Notice, 7 FCC Rcd at 5699, para. 56. The Commission draws on its conclusion that post-lottery cellular transactions resulted in a geographic consolidation of cellular licenses to suggest that PCS service areas should be larger than cellular telephone service areas. The Commission should be careful in interpreting this market development as a guide to PCS. First, if cellular radio and some types of (continued...)

"pedestrian's service," relying, for example, on low power microcell technology with limited handoff ability, the most efficient geographic scope could differ.

Third, the Commission should consider the delay in assigning numerous licenses with small geographic areas. In licensing cellular radio providers, the Commission took approximately nine years to award all 734 metropolitan statistical area (MSA)[25/] and rural service area (RSA)[26/] licenses in the United States and its possessions, from the time that the Commission adopted licensing

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24/ (...continued from preceeding page)
PCS develop as distinct services, there may be little correlation between the optimal size of a cellular license and the optimal size of a PCS license. Second, as the Commission itself states, a significant portion of the consolidation in the cellular telephone industry involved licenses for non-adjacent service areas. Indeed, our own review of recent cellular acquisitions, as reported in Cellular Investor newsletters during the period December 1990 to August 1992, indicates many such acquisitions did not serve to consolidate geographically licensees' properties. Finally, the award of most cellular licenses by lottery may have affected later transactions. Because a lottery is unlikely to award a license to the entity that values it most highly, post-lottery transactions will typically result.

25/ See Cellular Communications Systems, Report and Order, 86 FCC 2d 469 (1981). In 1982, the Commission decided to adopt Standard Metropolitan Statistical Areas as the basis for defining cellular service areas. See Cellular Communications Systems, Memorandum Opinion and Order on Reconsideration, 89 FCC 2d 58, 86-87 (1982).

26/ The Commission defined boundaries for rural areas in 1987. See Rules for Rural Cellular Radio Service, 2 FCC Rcd 3366 (1987).

rules to the time of the last rural lottery.[27] A similar delay in awarding PCS licenses would slow the delivery of new services to consumers and businesses. It could also delay the entry of the U.S. telecommunications industry into international PCS equipment and service markets, thereby placing it at a competitive disadvantage.

Fourth, the Commission should consider the effects of licensing relatively large geographic PCS service areas. If such licensing results in areas that are "too large," there would also be costs imposed on society. The Commission awards licenses of a fixed size, and does not, in most instances, permit license holders to "unbundle" the areas served by their licenses and transfer them to an entity that places a higher value on the unbundled license.[28] If this remains true for PCS licenses,

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27/ This includes approximately five years to award the first 30 licenses, during which time the Commission was authorized to use only comparative hearings, and six years to award the remaining licenses by lottery, from the time lottery procedures were adopted to the time the Commission held the last rural lottery.

For an analysis of the delay in licensing cellular radio, including a chronological review of the Commission's cellular proceedings, see Jeffrey H. Rohlfs, Charles L. Jackson & Tracey E. Kelly, Estimate of the Loss to the United States Caused by the FCC's Delay in Licensing Cellular Communications (N/E/R/A, 1991). This study was commissioned by AT&T.

28/ However, in October 1991, the Commission adopted rules to allow an RSA licensee/permittee contractually to cede its right to expand service to unserved areas within its RSA during the five-year fill-in period. See Unserved Areas, 6 FCC Rcd 6185, 6204-05 (1991).

large PCS service areas may not maximize the benefits society receives from spectrum use.

Fifth, because there is a limited amount of spectrum allocated for PCS, large geographic license areas will limit the number of local PCS providers, thus inhibiting the potential for development of diverse PCS offerings.[29/] Moreover, some firms may wish to provide PCS only to relatively small local areas. Consumers may be harmed if a firm chooses not to provide service rather than to serve a large area.

Finally, the Commission should recognize the competitive consequences of licensing areas that differ from the current cellular and local exchange markets. If PCS is a close substitute for cellular or some forms of traditional local exchange services, creating PCS license areas that are different from the current areas for those services could affect the development of competition among these services. For example, PCS license areas larger than those for cellular could place many cellular providers with relatively small service areas at a competitive disadvantage for customers whose travel patterns

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29/ We note that Commission has awarded approximately 200 experimental licenses to date. See Frequency Liaison Branch, Office of Engineering and Technology, FCC, "PCS Experimental Applications by File Date" (unpublished internal FCC document, updated Oct. 8, 1992).

extend beyond the boundaries of existing cellular franchise areas.[30/]

None of the four options being considered by the Commission -- or the existing cellular MSAs and RSAs -- easily strikes an appropriate balance among the considerations discussed above. In some respects, the considerations are mutually exclusive; for example, one cannot eliminate completely transaction costs and still provide opportunities for participation by a large number of firms. Our analysis does not reveal a "magic bullet" for choosing, through an administrative process, an optimal initial geographic size for PCS licenses. The considerations we have discussed provide some guidance, however, for the Commission to consider as it reviews options for choosing an initial geographic licensing scheme.

Based on these considerations, NTIA agrees with the Commission that it should not follow the existing MSA and RSA boundaries. Although adoption of these boundaries would minimize differences with existing cellular providers, their sheer number -- over 700 -- would increase transaction costs, make the achievement of technical compatibility more difficult for a family of PCS offerings, and could well cause licensing delays.

30/ However, because the costs associated with making adjacent cellular franchises technically compatible may not be great, some parties contend that this disadvantage may not be substantial.

Moreover, because many RSAs have grown in population since they were first defined by the Commission, the reasons that the Commission defined them may no longer be valid.

Nor do the existing LATAs appear to be a viable alternative for defining PCS service areas. The LATAs do not necessarily reflect integrated consumer or business areas relevant to PCS development. Although LATAs were designed, at least in part, to center on metropolitan areas or other identifiable communities of interest, their size was driven to a large degree by policy considerations in an attempt to give financial viability to the Bell companies and the interexchange carriers after divestiture.[31/] Because LATAs were drawn to accommodate the terms of the AT&T consent decree, we question whether they have strong relevance to all potential PCS providers other than the telephone companies that have been directly affected by them. Accordingly, we do not support their adoption as license areas without a greater showing that they would best meet the needs of all potential PCS licensees.

31/ See United States v. Western Electric Co., 569 F. Supp. at 993-994, 995. Specifically, in reviewing the LATAs as proposed by AT&T and the Department of Justice, the court identified relevant factors to include "minimization of service disruption to telephone subscribers; the avoidance of costly network rearrangement; and the establishment of LATAs of sufficient size to attract interexchange carriers." Id. at 996 n.27.